

REMARKS

Claims 1-35, 37-43, 45-56, 58-78, and 80-81 are pending in the application. The Applicants' attorney has amended claims 1-34, 41, 45, 49-50, 54-55, and 77-78, has cancelled claims 36, 44, 57, 60-76, and 79 without prejudice or disclaimer, and has added new dependent claims 80-81; but the amendments to claims 2-8, 10-11, 13-22, and 24-33 do not narrow these claims. Furthermore, the amendments to the claims do not raise new issues that would require further search and consideration by the Examiner because the Applicants' attorney has merely added to the independent claims limitations identical or similar to those in some of the cancelled dependent claims. For example, the Applicants' attorney has amended independent claims 34, 41, and 55 to respectively include the limitations from cancelled claims 34, 44, and 57. Furthermore, the Applicants' attorney has merely rewritten claims 9 and 54 as independent claims.

Rejection Of Claims 1-2, 4, 6-12, 14-23, 25-34, 36-41, 44-51, 53-55, 57-58, 77, and 79

Under 35 U.S.C. § 102(b) As Being Anticipated By U.S. 5,796,526 To Anderson

Claim 1

Claim 1 as amended recites a first beam source located a first distance from a beam input face and a second beam source located a second distance from the beam input face, the second distance being different than the first distance.

For example, referring, e.g., to FIG. 3 of the patent application, a beam combiner 300 includes a beam input face 312 aligned to receive G (first) and B (second) beams of light, a beam output face 314, a first reflector 322 aligned to reflect the G beam toward the beam output face, and a second reflector 326 aligned to pass the G beam from the first reflector and to reflect the B beam toward the beam output face. A first beam-generating section 330 (first beam source) is located a first distance D + W from the beam input face 312 and is operable to generate the G (first) beam of light, and a second beam-generating section 332 (second beam source) is located a second distance D + 2W from the beam input face and is operable to generate the B (second)

beam of light. The second distance $D + 2W$ is different than the first distance $D + W$. By making the first and second distances different, one can equalize the optical path lengths that the G and B beams respectively traverse from the sections 330 and 332 to the beam output face 314 and to any point beyond the output face. Equalizing the optical path lengths reduces or eliminates the aberration of the composite beam 302. For example, if the G and B beams have the same numerical aperture at the sections 330 and 332, respectively, and traverse the same optical path length, then these beams will have the same numerical aperture at and beyond the beam output face 314. That is, the composite beam 302 will include the G and B beams having the same numerical aperture, in contrast to the G beam having a significantly different numerical aperture than the B beam.

In contrast, referring, e.g., to Anderson's FIG. 3, Anderson's beam sources 31 are all the same distance, not different distances, from the beam input faces of the prisms 33.

Claims 2, 4, 6-8 and 10-11

These claims are patentable by virtue of their dependencies from claim 1.

Claim 9

Claim 9 as amended recites a beam input face aligned to receive a beam, a first reflector aligned to reflect the beam toward a beam output face, wherein the beam is operable to propagate from the beam input face, through a first region of a second reflector, to the first reflector, and through a second region of the second reflector.

For example, referring, e.g., to FIG. 4 of the patent application, a beam input face 412 is aligned to receive a G beam 106, and a first reflector 422 is aligned to reflect the G beam toward a beam output face 414. The G beam 106 propagates from the beam input face 412, through a first region of a second reflector 426 (at the intersection with dashed line 428), and to the first reflector 422, which directs the G beam back through a

second region of the second reflector 426 (at the intersection with composite beam 402) to the beam output face 414.

In contrast, referring, e.g., to Anderson's FIG. 3, it is impossible for a beam to propagate from an input face of one of Anderson's prisms 33, through a first region of a second one of Anderson's reflectors, to a first one of Anderson's reflectors, and through a second region of the second one of Anderson's reflectors.

Claim 12

Claim 12 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 14-22

These claims are patentable by virtue of their dependencies from claim 12.

Claim 23

Claim 23 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 25-33

These claims are patentable by virtue of their dependencies from claim 23.

Claim 34

Claim 34 as amended recites first, second, and third beams traversing respective paths from a beam source to a beam output face of a beam combiner, the paths having substantially the same optical length.

For example, referring, e.g. to FIG. 3 of the patent application, R, G, and B beams traverse respective paths from a beam source 304 to a beam output face 314 of a beam combiner 300. The distances of the R, G, and B generating sections 328, 330, and 332 from the beam input face 312 are different from one another (and may be adjusted from the distances shown in FIG. 3) such that the paths of the R, G, and B beams have substantially the same optical length.

In contrast, referring, e.g., to Anderson's FIG. 3, Anderson's beam sources 31 (and lenses 32) are all the same distance, not different distances, from the beam input faces of the prisms 33. Consequently, the respective paths traversed by the beams have different, not the same, optical path length.

Claims 37-40

These claims are patentable by virtue of their dependencies from claim 34.

Claim 41

Claim 41 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 34.

Claim 45

Claim 45 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 34.

Claims 46-48

These claims are patentable by virtue of their dependencies from claim 45.

Claim 49

Claim 49 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 34.

Claim 50

Claim 50 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 34.

Claim 53

This claim is patentable by virtue of its dependency from claim 50.

Claim 54

Claim 54 is patentable for reasons similar to those discussed above in support of the patentability of claim 9.

Claim 55

Claim 55 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 34.

Claim 58

This claim is patentable by virtue of its dependency from claim 55.

Claim 77

Claim 77 as amended is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Rejection Of Claims 3, 5, 13, 24, 35, 42, 43, 52, 56, 59, and 78 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Anderson

Claims 3, 5, 13, 24, 35, 42, 43, 52, 56 and 59 are patentable by virtue of their respective dependencies from claims 1, 12, 23, 34, 41, 50 and 55.

Claim 78

Claim 78 as amended recites a first beam source located a first distance from the beam-input face of a second section of transparent material and a second beam source located a second distance from the beam-input face of the third section of transparent material, the second distance being different than the first distance.

In contrast, as stated above in support of the patentability of claim 1, Anderson's beam sources 31 (and lenses 32) are all the same distance from the respective beam-input faces of the prisms 33. Furthermore, Anderson does not suggest locating the beam sources 31 at different distances from the respective beam-input faces of the prisms 33. A finding to the contrary constitutes impermissible hindsight by the Examiner.

CONCLUSION

In view of the foregoing, all claims remaining in the application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

In the event additional fees are due as a result of this amendment, payment for those fees has been enclosed in the form of a check. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

If the Examiner believes that a phone interview would be helpful, he is respectfully requested to contact the Applicant's attorney, Bryan Santarelli, at (425) 455-5575.

Respectfully submitted,

Bryan A. Santarelli
Registration No. 37,560
Graybeal Jackson Haley LLP
155 - 108th Avenue N.E., Suite 350
Bellevue, WA 98004-5973
(425) 455-5575

Dated: April 28, 2006